

PHOTO-MAPS AND AIR PHOTOGRAPHS IN POLAND

Old and new resources for Poland's landscape heritage

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Background and objectives

Poland and most of Europe possesses a largely un-recognised landscape resource in a virtually complete coverage of 1:25.000-scale **photo-maps** made for German military and intelligence purposes in the 1930s and 1940s, showing the landscape as it was before the radical changes of the post-war years. Their full historical potential has yet to be assessed.

Up till now little money has been allocated in Poland to **exploratory air photography**. The technique has had to compete for funds with Poland's long-standing programme of ground survey, artefact collection and recording (the Polish Archaeological Record or AZP). This now covers the greater part of Poland through over 500,000 entries. The AZP provides an unrivalled opportunity for Polish aerial survey to be even more effective than in other countries, adding 'shape' to sites known only from surface scatters of artefacts and revealing archaeological and landscape features where no evidence at all is visible at ground level.

The Polish contribution to the Culture 2000 project has three main aims.

- To identify the location, number and quality of the German photo-maps across Europe and to test ways of making them more widely available, for instance as scanned images.
- To carry out air photography in five heavily-ploughed areas, along with mapping of the results and the creation of a database for both field-walking (AZP) and aerial evidence.
- To take part in the Europe-wide network of contacts, meetings and discussions about aerial and landscape archaeology and to publicise the project through the Internet.

The project will demonstrate the value of aerial survey in Poland and will hopefully assist in securing at least modest funding for the technique in the longer term. Adding the results to the AZP will help the conservation of the sites and landscapes revealed from the air. For the general public the photographs will provide striking evidence of the nature and value of these half-hidden traces of the cultural heritage which Poland shares with Europe as a whole.

Progress to the end of 2005

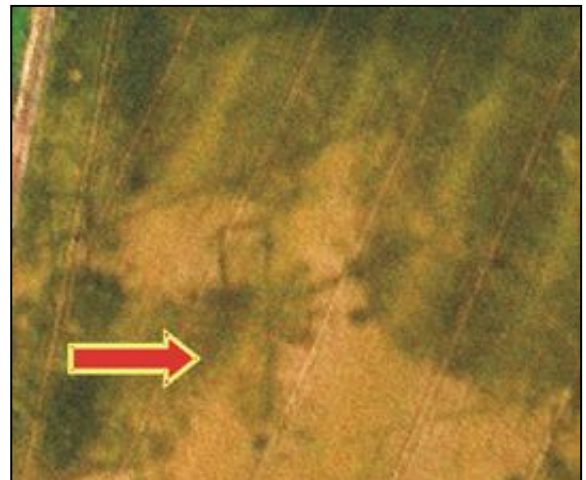
Work on the photo-maps and 'historical' air photographs has been in progress since the start of the project. Air photography in 2005 was hampered by poor weather but significant results were achieved in several areas. Project members took part in a number of meetings through the Culture 2000 network and Poland is now hosting the project's central website.

German photo-maps

The search for photo-maps revealed none in the National Archive in Poznań but the National Museum in Szczecin holds an as yet un-catalogued collection of aerial photographs taken before and during WWII. The material in the Central Military Archive in Warsaw was shown to be still un-catalogued. Work on a database for the photo-maps and mosaics in Poznań and Słupsk in Poland and at Keele University in the UK is well under way, the resulting information being made available in instalments through the project's central website.

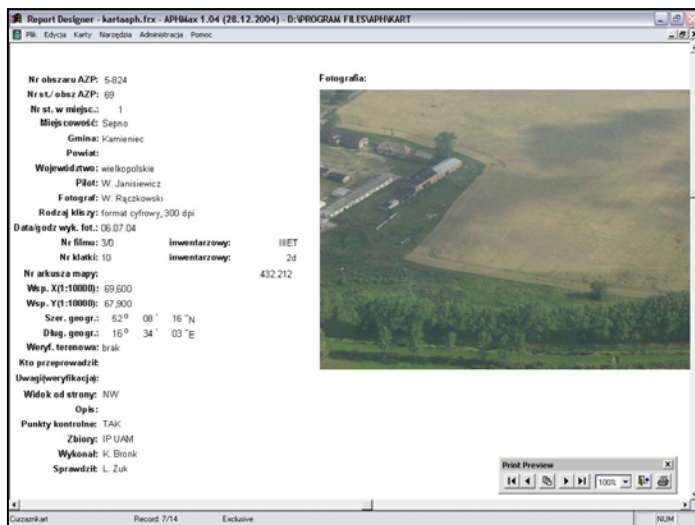
Aerial survey, mapping and interpretation

Despite unfavourable weather conditions useful aerial records were made during two flights in July 2005 over the Vistula, Bug and Narew valleys in N and NE Poland. Sites recorded included a Medieval hillfort and a multi-phase Roman-to-Medieval settlement, along with traditional villages and their surroundings, characteristic landscapes and a prehistoric graveyard under excavation.



Left: *Flight-in 2005 (coloured lines)*. Right: *Trapezoid Neolithic house found from the air in 2005*.

In spite of the poor weather 20 hours of flying in Wielkopolska, Kujawy, Lubusz Land and western Pomerania in June and July 2005 allowed numerous archaeological sites to be photographed as variations in colour or height in the ripening crops. Many were previously unknown and a site-type (the so-called 'pit-alignment' known elsewhere in Europe) was recorded for the first time in Poland. There were also spectacular traces of trapezoidal buildings from the Early Neolithic period. Other settlements were represented by groups of pits. Aerial records were also made of villages, Medieval towns, granges, manor houses, monasteries and churches, as well as more recent industrial and military features.



Database development

A major development was the design and testing of a database application (*APh_Max*) for storage and analysis of the air-photo archives in various institutions. This is being used initially for mass data entry of the 3000 photographs of the Wielkopolska region held at the Adam Mickiewicz University. This is the third module of a heritage management system under development now for several years at the Poznań Archaeological Museum. It will enhance the management of air photo collections

through the creation of unique files for each photograph, that can then be compared with other data-sets such as text descriptions of individual sites, GIS data etc. A typical data screen is illustrated above. The database will shortly be linked to those of the AZP to assist the protection and management of monuments, whether known from ground-survey or from aerial evidence.

Culture 2000 network, meetings and website

Students and members of the project team took part in meetings of the Culture 2000 co-ordination group and of AARG in Munich and Leuven (Sept 2004 and 2005) and in other Culture 2000 meetings at Helsinki, Rome and Klaipeda in Lithuania. The Archaeological Museum at Poznań is now acting as host to the project's central website, to which all of the co-partners are contributing (www.muzarp.poznan.pl/EuLandscapes).